

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0122718

Owner: Weyerhaeuser Company  
Address: 1300 SW Fifth Avenue, 5<sup>th</sup> Floor, Portland, OR 97201

Continuing Authority: Mill Spring Chips, Inc.  
Address: 218 Midway Route, Monticello, AR 71657

Facility Name: Mill Spring Wood Recovery  
Facility Address: PO Box 68, Mill Spring, MO 63952

Legal Description: NW ¼, NE ¼, Sec. 35, T28N, R3E, Wayne County  
Latitude/Longitude: +3703478/-09041398

Receiving Stream: Unnamed Tributary to Black River (U)  
First Classified Stream and ID: Black River (P)(02784)  
USGS Basin & Sub-watershed No.: (11010007-060002)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

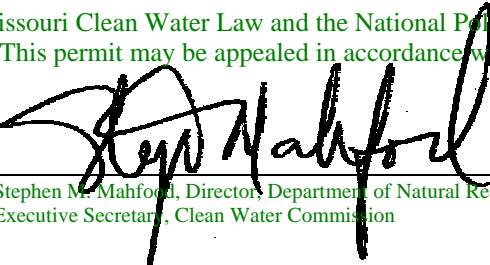
**FACILITY DESCRIPTION**

Outfalls #001 - SIC #2499  
Stormwater runoff from plant complex  
Design flow exceeds 1 MGD.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

February 22, 2002      June 13, 2003  
Effective Date      Revised

February 21, 2007  
Expiration Date  
MO 780-0041 (10-93)

  
Stephen M. Mahford, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

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Jim Hull, Director of Staff, Clean Water Commission

					PAGE NUMBER 2 of 6	
<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PERMIT NUMBER MO-0122718	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfalls #001</u> (Note 1)						
Flow	MGD	*		*	once/day	24 hr. estimate
Rainfall Total	inches	*		*	daily****	rain gauge
Oil & Grease	mg/L	15		10	once/quarter***	grab
pH - Units	SU	**			once/quarter***	grab
Total Suspended Solids	mg/L	70		70	once/quarter***	grab
Settleable Solids	mL/L/hr	1.5		1.5	once/quarter***	grab
Color	color units	*		*	once/quarter***	grab
Phenol	mg/L	1.0		1.0	once/quarter***	grab
Chemical Oxygen Demand	mg/L	120		90	once/quarter***	grab
Nitrate & Nitrite as N	mg/L	*		*	once/quarter***	grab
Total Kjeldahl Nitrogen as N	mg/L	*		*	once/quarter***	grab
Phosphorus	mg/L	*		*	once/quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2002</u> .						
Whole Effluent Toxicity (WET) Test	% Survival	See Special Conditions			once in July during first year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

- \* Monitoring requirement only.
- \*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- \*\*\* Sample once per quarter.
- \*\*\*\* Daily means Monday through Friday, Saturday and Sunday totals may be combined. Results are to be reported for each day Monday through Friday and a "weekend" total for Saturday and Sunday.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 1 - Monitor outfalls daily for flow. Collect one sample from a discharge each quarter. If a discharge does not occur from Outfall #001 during the first two months of a quarter, a sample shall be collected during the third month of a quarter from the basin. The basin sample shall consist of a surface grab sample at least three (3) feet from the shore and shall be for monitoring purposes only. Discharge monitoring reports shall identify whether the quarterly sample was from a discharge or from the basin.

C. SPECIAL CONDITIONS

1. Report as no-discharge when a discharge does not occur during the report period.
2. Woodchips, bark and fines shall be managed to control the amount of precipitation that is allowed to infiltrate.
3. There shall be no wood waste, bark scrap, or any other processed wood materials discharged from the plant complex and there shall be no process wastewater discharged from the debarking operation.
4. Whole Effluent Toxicity (WET) tests will be conducted as follows:

SUMMARY OF WET TESTING FOR THIS PERMIT				
OUTFALL	A.E.C. %	FREQUENCY	SAMPLE TYPE	MONTH
#001	100%	first year only	Grab	July

## a. Test Schedule and Follow-Up Requirements

- (1) Perform a multiple-dilution test in the month and at the frequency specified above.

If the test passes do not repeat. Submit results with the annual report.

If the test fails the effluent limit, a second multiple dilution test shall be performed within 60 days

- (2) The permittee shall submit a summary of all test results for the test series to the Planning Section of the WPCP, DNR, Box 176, Jefferson City, MO within 14 days of the second failed test. DNR will contact the permittee with initial guidance on conducting a toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE).
- (3) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.
- (4) In addition to the WET test summary report required in part (2), all failing test results shall be reported to DNR within 14 days of the availability of results.
- (5) All WET test results for the reporting period shall be summarized and submitted to DNR by the end of the following October. When WET test sampling is required to run over one DMR period, each DMR report shall contain information generated during the reporting period.

## b. To pass a multiple-dilution test:

All dilutions equal to or greater than the AEC must be nontoxic.

C. SPECIAL CONDITIONS (continued)

4. Whole Effluent Toxicity (WET) (continued)

c. Test Conditions

- (1) Test species: Ceriodaphnia dubia and fathead minnows, Pimephales promelas. Organisms used in WET testing should come from cultures reared for the purpose of conducting toxicity tests and should be cultured in a manner consistent with the most current USEPA guidelines. All test animals should be cultured as described in EPA-600/4-90/027.
  - (2) Test period: 48 hours at the "Acceptable Effluent Concentration" (AEC) specified above.
  - (3) When dilutions are required, upstream receiving stream water will be used as dilution water. If upstream water is unavailable or if mortality in the upstream water exceeds 10%, "reconstituted" water will be used. Procedures for generating reconstituted water will be supplied by the Department of Natural Resources (DNR).
  - (4) Tests should be initiated immediately after the sample is collected, but tests must be initiated no later than 36 hours after collection.
  - (5) Multiple-dilution tests will be run with:
    - (a) 100%, 50%, 25%, 12.5%, and 6.25% effluent,
    - (b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
    - (c) reconstituted water.
  - (6) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.
5. All paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartoons) shall be stored so that these materials are not exposed to storm water. Spill prevention, control, and/or management shall be provided sufficient to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
  6. Collection facilities shall be provided on-site, and arrangement made for proper disposal of (non-wood) waste products, including but not limited to, petroleum waste products and solvents.
  7. Good housekeeping practices shall be maintained on the site to keep solid waste from entry into waters of the state.
  8. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
  9. An individual shall be designated by the permittee as responsible for environmental matters. Staff of the permitted facility shall inspect, on workdays, any structures that function to prevent pollution of storm water or to remove pollutants from storm water and of the facility in general to ensure that any Best Management Practices are continually implemented and effective.

C. SPECIAL CONDITIONS (continued)

10. Substances regulated by federal law under the Resources Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored, or used for maintenance, cleaning or repair shall be managed according to the provision of RCRA and CERCLA.
11. All involved personnel shall be trained in material handling and storage, and housekeeping of maintenance areas. Upon request, proof of training shall be submitted to the Department.
12. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards or with any applicable terms of a settlement agreement.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
  - (d) Incorporate new requirements if established by regulation, for the control of water pollutants originating from harvest areas.The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
13. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
  - (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
  - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
  - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
  - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
  - (e) There shall be no significant human health hazard from incidental contact with the water;
  - (f) There shall be no acute toxicity to livestock or wildlife watering;
  - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
  - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

**SUMMARY OF TEST METHODOLOGY FOR WHOLE-EFFLUENT TOXICITY TESTS**

Whole-effluent-toxicity test required in NPDES permits shall use the following test conditions when performing single or multiple dilution methods. Any future changes in methodology will be supplied to the permittee by the Missouri Department of Natural Resources (MDNR). Unless otherwise specified by MDNR, procedures should be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA/600/4-90/027.

Test conditions for Ceriodaphnia dubia:

Test duration:	48 h
Temperature:	25 ± 2°C
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light, 8 h dark
Size of test vessel:	30 mL (minimum)
Volume of test solution:	15 mL (minimum)
Age of test organisms:	<24 h old
No. of animals/test vessel:	5
No. of replicates/concentration:	4
No. of organisms/concentration:	20 (minimum)
Feeding regime:	None (feed prior to test)
Aeration:	None
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Mortality (Statistically significant difference from upstream receiving water control at p# 0.05)
Test acceptability criterion:	90% or greater survival in controls

Test conditions for (Pimephales promelas):

Test duration:	48 h
Temperature:	25 ± 2°C
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light/ 8 h dark
Size of test vessel:	250 mL (minimum)
Volume of test solution:	200 mL (minimum)
Age of test organisms:	1-14 days (all same age)
No. of animals/test vessel:	10
No. of replicates/concentration:	4 (minimum) single dilution method 2 (minimum) multiple dilution method
No. of organisms/concentration:	40 (minimum) single dilution method 20 (minimum) multiple dilution method
Feeding regime:	None (feed prior to test)
Aeration:	None, unless DO concentration falls below 4.0 mg/L; rate should not exceed 100 bubbles/min.
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Mortality (Statistically significant difference from upstream receiving water control at p# 0.05)
Test Acceptability criterion:	90% or greater survival in controls

Date of Fact Sheet: June 17, 1998; Revised February 18, 2003

Date of Public Notice: July 24, 1998; February 9, 2001; December 7, 2001

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT  
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0122718  
FACILITY NAME: Mill Spring Wood Recovery  
OWNER NAME: Willamette Industries, Inc.  
LOCATION: Sec. 35, T28N, R3E, Wayne County  
RECEIVING STREAM: Tributary to Black River

FACILITY DESCRIPTION AND RATIONALE

The Willamette Industries, Inc. has applied for the renewal of a site specific NPDES operating permit for a storm water discharge for the Mill Spring Wood Recovery Chip Mill located in Mill Spring, Missouri. There is no process wastewater or domestic wastewater treatment or discharge involved in this permit. The storm water discharge will be to the Black River in NW ¼, NE ¼, Sec. 35, T28N, R3E, Wayne County, at River Reach 11010007-04-00.

Outfall #001 contains the discharge of storm water from log storage, slab storage, chip storage, bark storage, and chipper site. Domestic wastewater treatment is provided by a septic tank and tile field system.

This permit will be issued for a period of five years.

TECHNOLOGY BASED EFFLUENT LIMITATIONS

Regulation promulgated at 40 CFR §122.44(a) require technology based effluent limitations to be placed in NPDES permits based on National effluent limitations guidelines and standards, best professional judgement (BPJ), or a combination of the two. Discharges from Outfall #001 are subject to effluent limitations given in 40 CFR §429.24 (for debarking) which states that "...There shall be no discharge of process wastewater pollutants into navigable waters." Other listed effluent limitations were set using "best professional judgment" and represent effluent levels achievable using "good housekeeping" practices and limiting the amount of water infiltration the storage (and any waste) piles at the site and also limiting the time such water remains in contact with stored materials.

RATIONALE FOR WATER QUALITY EFFLUENT LIMITS

10 CSR 20-7.031 Water Quality Standards, Missouri Department of Natural Resources (the Department) defines the Clean Water Commission's water quality objectives in terms of water uses to be maintained and criteria to protect those uses. The Black River is a classified stream with the following beneficial uses: irrigation, livestock and wildlife watering, protection of warm water aquatic life and human health (fish consumption), cool water fishery, whole body contact, boating and canoeing, and drinking water supply.